

# Minimum Ages and Intervals Between Doses of Routinely Recommended Vaccines<sup>1, 2</sup>

| Vaccines Required for Day Care and/or School Attendance in South Carolina <sup>1</sup> | Vaccine and dose number  | Minimum age for this dose   | Minimum interval to next dose   |
|--|--|---|---|
|  | Hepatitis B (HepB) -1 <sup>3</sup><br>HepB -2<br>HepB-3 <sup>4</sup>                                 | Birth<br>4 weeks<br>24 weeks  | 4 weeks<br>8 weeks<br>---   |
|  | Inactivated poliovirus (IPV)-1 <sup>3</sup><br>IPV-2<br>IPV-3<br>IPV-4 <sup>10</sup>                 | 6 weeks<br>10 weeks<br>14 weeks<br>4 years  | 4 weeks<br>4 weeks<br>6 months<br>---   |
|  | Diphtheria-tetanus-acellular pertussis (DTaP)-1 <sup>3</sup><br>DTaP-2<br>DTaP-3<br>DTaP-4<br>DTaP-5 | 6 weeks<br>10 weeks<br>14 weeks<br>12 months<br>4 years   | 4 weeks<br>4 weeks<br>6 months <sup>5,6</sup><br>6 months <sup>5,6,7</sup><br>--- |
|  | Tetanus-diphtheria (Td)  | 7 years   | 5 years   |
|  | Tetanus-diphtheria-acellular pertussis (Tdap) <sup>13</sup>  | 7 years   | ---   |
|  | <i>Haemophilus influenza</i> type b (Hib)-1 <sup>3,8</sup><br>Hib-2<br>Hib-3 <sup>9</sup><br>Hib-4   | 6 weeks<br>10 weeks<br>14 weeks<br>12 months  | 4 weeks<br>4 weeks<br>8 weeks<br>---  |
|  | Measles-mumps-rubella (MMR)-1 <sup>11</sup><br>MMR-2 <sup>11</sup>                                   | 12 months<br>13 months (routine @ 4-6 years)  | 4 weeks<br>---  |
|  | Varicella (Var)-1 <sup>11</sup><br>Var-2 <sup>11</sup>   | 12 months<br>15 months (routine @ 4-6 years)  | See footnote <sup>12</sup><br>--  |
|  | Pneumococcal conjugate (PCV)-1 <sup>8</sup><br>PCV-2<br>PCV-3<br>PCV-4                               | 6 weeks<br>10 weeks<br>14 weeks<br>12 months  | 4 weeks<br>4 weeks<br>8 weeks<br>---  |
| Recommended Vaccines <sup>1</sup>  | Rotavirus (RV)-1 <sup>14</sup><br>RV-2<br>RV-3 <sup>15</sup>   | 6 weeks<br>10 weeks<br>14 weeks   | 4 weeks<br>4 weeks<br>---   |
|  | Hepatitis A (HepA)-1<br>HepA-2   | 12 months<br>18 months  | 6 months <sup>5</sup><br>---  |
|  | Human Papillomavirus (HPV)-1 <sup>16</sup><br>HPV-2<br>HPV-3 <sup>17</sup>                           | 9 years<br>9 years (+4weeks)<br>9 years (+24 weeks)   | 4 weeks<br>12 weeks <sup>17</sup><br>---  |
|  | Meningococcal conjugate (MCV4)-1 <sup>18</sup><br>MCV4-2   | 2 years (if high risk indication) <sup>19</sup><br>(routine @ 11-12 years)<br><br>11 years (+8 weeks)<br>(routine @ 16 years) | 8 weeks<br><br>---  |
|  | Influenza, inactivated <sup>20</sup>   | 6 months  | 4 weeks   |
|  | Influenza, live attenuated <sup>20</sup>   | 2 years   | 4 weeks   |

- <sup>1</sup> The schedule of recommended vaccines is developed and published yearly by the Advisory Committee on Immunization Practices (ACIP) and the Centers for Disease Control and Prevention (CDC). Certain ACIP-recommended vaccines are also **required** for school and/or daycare attendance in South Carolina according to the S. C. Code of Laws Section 44-20-180 and Regulation 61-8. The "Required Standards of Immunization for School Attendance" and the "Required Standards of Immunization for Day Care Attendance" are published annually by the Department of Health and Environmental Control (DHEC).
- <sup>2</sup> Combination vaccines are available. Use of licensed combination vaccines is generally preferred to separate injections of their equivalent component vaccines. When administering combination vaccines, the minimum age for administration is the oldest age for any of the individual components; the minimum interval between doses is equal to the greatest interval of any of the individual components.
- <sup>3</sup> Combination vaccines containing a hepatitis B component (Comvax, Pediarix, and Twinrix) are available. These vaccines should not be administered to infants younger than 6 weeks because of the other components (i.e., Hib, DTaP, HepA, and IPV).
- <sup>4</sup> HepB-3 should be administered at least 8 weeks after HepB-2 and at least 16 weeks after HepB-1, and should not be administered before age 24 weeks.
- <sup>5</sup> Calendar months
- <sup>6</sup> The minimum recommended interval between DTaP-3 and DTaP-4 is 6 months. However, DTaP-4 need not be repeated if administered at least 4 months after DTaP-3.
- <sup>7</sup> The fifth dose is not necessary if the fourth dose was administered at age 4 years or older.
- <sup>8</sup> Children receiving the first dose of Hib or PCV vaccine at age 7 months or older require fewer doses to complete the series.
- <sup>9</sup> If PRP-OMP (Pedvax-Hib) was administered at ages 2 and 4 months, a dose at age 6 months is not required.
- <sup>10</sup> A fourth dose is not needed if the third dose was administered on or after the 4<sup>th</sup> birthday and at least 6 months after the previous dose.
- <sup>11</sup> Combination measles-mumps-rubella-varicella (MMRV) vaccine can be used for children aged 12 months through 12 years.
- <sup>12</sup> Recommended minimum interval between doses for persons <13 years of age is 12 weeks. However, if the second dose is administered at least 28 days following the first dose, the second dose does not need to be repeated. Recommended minimum interval for persons ≥13 years of age is 4 weeks.
- <sup>13</sup> Only one dose of Tdap is recommended. Subsequent doses should be given as Td. For one brand of Tdap (Adacel), the minimum age is 11 years. For management of a tetanus-prone wound in a person who has received a primary series of a tetanus-toxoid containing vaccine, there is no minimum interval between a previous dose of any tetanus-containing vaccine and Tdap.
- <sup>14</sup> The first dose of rotavirus must be administered between 6 weeks 0 days and 14 weeks 6 days. The vaccine series should not be started after age 15 weeks 0 days. Rotavirus should not be administered to children older than 8 months 0 days, regardless of the number of doses received before that age.
- <sup>15</sup> If two doses of Rotarix are administered as age appropriate, a third dose is not necessary.
- <sup>16</sup> Bivalent HPV vaccine (Cervarix) is approved for females 10 through 25 years of age. Quadrivalent HPV vaccine (Gardasil) is approved for males and females 9 through 26 years of age.
- <sup>17</sup> The minimum age for HPV-3 is based on the baseline minimum age for the first dose (108 months) and the minimum interval of 24 weeks between the first and third doses. Dose 3 need not be repeated if it is given at least 16 weeks after the first dose (and if the intervals between doses 1 and 2 and doses 2 and 3 are maintained at 4 weeks and 12 weeks, respectively).
- <sup>18</sup> Revaccination with meningococcal vaccine is recommended for previously vaccinated persons who remain at high risk for meningococcal disease (See CDC. Updated recommendations from the ACIP for vaccination of persons at prolonged increased risk for meningococcal disease. *MMWR* 2009; 58: [1042-3]).
- <sup>19</sup> Menactra may be given as young as 2 months for high-risk children.
- <sup>20</sup> One dose of influenza vaccine per season is recommended for most people. Children younger than 9 years of age who are receiving influenza vaccine for the first time should receive 2 doses this season. See current influenza recommendations for other factors affecting the decision to administer one vs. two doses to children young than 9 years.

**Adapted from: Table 1, General Recommendations on Immunization, *MMWR*, Vol. 60/No. 2, January 28, 2011.**